

United States Patent [19]

Teffenhart

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[54] **HYDROPHILIC POLYURETHANES
PREPARED FROM MIXED OXYALKYLENE
GLYCOLS**

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[58] Field of Search 528/76, 904

[56] **References Cited**

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[57] **ABSTRACT**

A hydrophilic, thermoplastic polyurethane polymer of improved dimensional stability and mechanical strength having an average molecular weight of from about 10,000 to about 200,000 produced by reacting (A) an organic diisocyanate with (B) a blend of glycol components comprising (i) ethylene glycol and/or diethylene glycol, (ii) a polyoxyethylene glycol having an average molecular weight of from about 400 to about 20,000 and (iii) a polyoxypropylene glycol having an average molecular weight of from about 200 to about 2500, and (C) water in an amount up to about 0.5% by weight of the reaction mixture. The polymers are particularly useful in the form of a film product such as gloves and condoms. Other uses are as low friction coatings, body implants and active agent release media.

45 Claims, No Drawings